

# NASA Explorer Schools News

*A monthly newsletter  
from the teachers of  
tomorrow's explorers*

## Featured Mission



### Capturing Pieces of the Sun

Have you ever wondered what the Sun is made of? Or what makes Earth different from other planets? NASA scientists have asked those exact questions. The Genesis spacecraft was designed to find the answers. The spacecraft was launched toward the Sun in 2001. It

orbited the Sun for more than two years.

Genesis collected particles from the solar wind. Scientists believe that these particles will help them understand the material from which planets formed. Genesis collected solar wind particles onto silicon panels. The particles were carried back to Earth in September 2004. The original plan was to capture the Genesis spacecraft mid-air with a helicopter. Unfortunately, the capture was unsuccessful. The spacecraft crashed into the Utah desert. The wrecked spacecraft was taken to a special clean room at NASA's Johnson Space Center. Luckily, scientists were able to recover the solar wind particle samples. These samples are the first non-Earth material returned by a U.S. spacecraft since 1972. That was when the last Moon rocks were brought back to Earth by Apollo astronauts. Now scientists can study the samples to find out exactly of what the Sun is made.

<http://genesission.jpl.nasa.gov/>

## Bytes and Bits



NASA Returned to Flight successfully last month. The seven-member crew of Discovery traveled safely to the International Space Station and back. It was the first Shuttle mission in more than two years.

<http://www.nasa.gov/returntoflight/>

### NESN Puzzler

*How fast does the space shuttle travel while orbiting Earth in kilometers per second?*

The first ten individual NES students to send the correct answer will win a NASA prize! Send us your name, your teacher's name and your school's name and address. Answer to last month's puzzler: Goddard Space Flight Center, 1959.

## NES Spotlight

### Circle of Nations School

**Students:** 200

**Teaching Faculty:** 25

Circle of Nations School is a boarding school for Native Americans. Students come from 17 states and about 30 tribal communities. It is in the center of Wahpeton, North Dakota. The school was founded in 1904. Circle of Nations includes grades five through eight. The school teaches students to be responsible and to care about their community. This year Circle of Nations has twelve local winners going to the North Dakota Native American Science Fair in Bismark. In the last three years, they have sent five students to the national science fair in Albuquerque, New Mexico. Students have won top honors at both the state and national events. Circle of Nations students learn how local businesses use science on a daily basis. This helps them understand the importance of science in everyday life. Circle of Nations School really is preparing students for the future!

## NASA Explorers are people like you

**Name:** Narottam P. Bansal

**Education:** Ph. D. in Physical Chemistry

**Job Title:** Senior Materials Research Scientist



Narottam is a Senior Materials Research Scientist at NASA's Glenn Research Center. His job is to develop new materials for making airplane engines. These materials can be glass, ceramic or mixed materials called composites. Narottam tries to find materials that can make engines that run faster and pollute less. He was inspired by the launch of the Russian spacecraft Sputnik when he was in middle school in 1957. "It inspired and fascinated me so much that I decided to pursue a career in science." He worked hard studying math and science. He was the first person in his family to earn a college degree. Narottam's degrees in science helped him fulfill his dream of coming to the U.S. and working for NASA. He feels that the coolest part of his job is coming up with new ideas and testing them in the laboratory. He enjoys traveling and presenting the results of his research to scientists from around the world. Narottam won NASA's Medal for Exceptional Scientific Achievements for his work.



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